

**Notice of Allowability**

Application No.

10/660,818

Applicant(s)

MCKAY, BRENT

Examiner

Steven E. Holton

Art Unit

2629

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 8/2/2007.
2. ☒ The allowed claim(s) is/are 1,3-14,16,21-23,25-37,39-51 and 53-84.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### DETAILED ACTION

1. This Office Action is made in response to applicant's amendment filed on 8/2/2007. Claims 1, 3-14, 16, 21-23, 25-37, 39-51, and 53-84 are currently pending in the application. An action follows below:

#### ***Allowable Subject Matter***

2. Claims 1, 3-14, 16, 21-23, 25-37, 39-51, and 53-84 are allowed.

The following is an examiner's statement of reasons for allowance:

The present invention is directed to a method of operating a display device to reduce burn-in of images by uneven aging of pixels when the display is operated.

Claims 1 and 16 identify the feature of driving a display in a reverse burn mode after a normal burn mode to reduce the differences between pixels with high burn values and low burn values. The closest prior art, Teronai et al. (JP 11-175022), Grimes et al. (USPqPub: 2003/0142212) and Shigeta (USPqPub: 2002/0030674) disclose methods of reducing burn-in differences between pixels using average calculations of the pixels in the display, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Claim 14 identifies the feature determining a secondary burn value for driving pixels during a reverse burn mode such that the average value of the pixel during the active and reverse burn modes is approximately equal to one-half of the bit depth of the pixel. The closest prior art, Teronai et al. (JP 11-175022), Grimes et al. (USPqPub: 2003/0142212) and Shigeta (USPqPub: 2002/0030674) disclose methods of reducing

burn-in differences between pixels using average calculations of the pixels in the display, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Claims 21, 35, and 49 identify the uniquely distinct features “determining a third primary value for a third pixel”, “determining that the third primary value for the third pixel is lower than each of the first primary value and the secondary primary value of the second pixel”, and selecting secondary values based on the difference between the third primary value and the first primary value, or the third primary value and the second primary value. The closest prior art, Teronai et al. (JP 11-175022), Grimes et al. (USPqPub: 2003/0142212) and Shigeta (UsPgPub: 2002/0030674) disclose methods of reducing burn-in differences between pixels using average calculations of the pixels in the display, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Claims 63, 68, and, 73 identify the features using a data base of average pixel values based on the image history and displaying the conditioning input on the display for a secondary period of time to reduce a difference between the light output of different pixels within the display. The closest prior art, Teronai, Grimes et al. (USPgPub: 2003/0142212) and Shigeta (UsPgPub: 2002/0030674) disclose methods of reducing burn-in differences between pixels using average calculations of the pixels in the display, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Claims 65, 70, and, 75 identify the features of basing the correction values on manufacturing parameters of the display panel and displaying the conditioning input on the display panel to reduce a difference between a light output of the first and second pixels. The closest prior art, Teronai, Grimes et al. (USPqPub: 2003/0142212) and Shigeta (UsPgPub: 2002/0030674) disclose methods of reducing burn-in differences between pixels using average calculations of the pixels in the display, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Claims 66, 71, and 76, identify the features of determining conditioning values for first and second pixels within a static region of the display and the display having dynamic and static regions and outputting the conditioning values to reduce the difference of light output between the different pixels. The closest prior art, Teronai, Grimes et al. (USPqPub: 2003/0142212) and Shigeta (UsPgPub: 2002/0030674) disclose methods of reducing burn-in differences between pixels using average calculations of the pixels in the display, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Claims 78, 80, and, 82 identify the features of determining a conditioning output where the average value of the first pixel for the primary and secondary period of time is approximately equal to one-half of a bit depth of the first pixel and displaying the conditioning input on the display to reduce the difference between a light output of first and second pixels of the display. The closest prior art, Teronai, Grimes et al. (USPqPub: 2003/0142212) and Shigeta (UsPgPub: 2002/0030674) disclose methods of reducing burn-in differences between pixels using average calculations of the pixels in

the display, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Claim 84 identifies the feature driving a display in a reverse burn mode after a normal burn mode to reduce the differences between pixels with high burn values and low burn values and driving only the pixels identified as having high burn values while not driving the pixel identified as having the lowest burn value. The closest prior art, Teronai et al. (JP 11-175022), Grimes et al. (USPgPub: 2003/0142212) and Shigeta (USPgPub: 2002/0030674) disclose methods of reducing burn-in differences between pixels using average calculations of the pixels in the display, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven E. Holton whose telephone number is (571) 272-7903. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven E. Holton  
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August 17, 2007

AMR A. AWAD  
SUPERVISORY PATENT EXAMINER  
